

ABSTRACT

A photosensitive material is coated on an insulating material (13) stacked on a substrate (1) (Fig. 16A), and exposed and developed using a mask having a light-shielding film 5 capable of controlling a light transmittance from 100% to 0% annularly and continuously to form a spiral photosensitive material (Fig. 16B). After conducting treatment at a high temperature, the insulating material under the photosensitive material is spirally formed by etching (Fig. 16C). A metal 10 (12) is stacked on the substrate (Fig. 16D), and a photosensitive material is coated (Fig. 16E). The photosensitive material is exposed and developed using a mask having an annular light-shielding film with a light transmittance of 0% to leave the photosensitive material 15 covering only the metal on the base of the spiral structure (Fig. 16F). After treatment at a high temperature is conducted and the metal exposed is etched (Fig. 16G), the photosensitive material is removed (Fig. 16H).